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RECORDS AND ACCOUNTS  
FOR CALIFORNIA FARMERS

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# RECORDS AND ACCOUNTS FOR CALIFORNIA FARMERS

ARTHUR SHULTIS<sup>1</sup>

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## INTRODUCTION

THE MAIN PURPOSE in keeping farm records and accounts is the improvement of earnings of the farm business. Record keeping in itself will not increase earnings. But the systematic recording of events and financial transactions from day to day will make for wiser decisions in farm and financial matters, and the annual profit and loss statement resulting from a summarization of the year's records will disclose improvements that should lead to better farming or handling of finances.

Farm records are usually kept for the following purposes:

1. To determine the earnings of the farm and to discover ways of increasing them. (See fig. 1.)
2. To furnish information for income-tax returns and other statements or reports required of farmers.
3. To facilitate the operation of the farm business from day to day in the payment of wages and bills, in obtaining credit, and in conserving funds and supplies.
4. To provide a historical record of events and financial transactions for later use in refreshing memory or settling controversies.

There are many other uses for farm records, but it is assumed the reader is already convinced of his need for them and wishes help in adopting and getting a system started. And being human, he usually wants the minimum in records that will meet his needs. These needs, however, vary widely with kind, size, and ownership of farm. Partnerships, corporations, and farmers with extensive operations and numerous employees will require a more complete accounting system than can be included in this circular. This is limited, therefore, to a presentation of simple records that will furnish a reasonably accurate statement of farm profit or loss for the year and will meet most of the requirements of farmers who, of necessity or from choice, are their own bookkeepers and who are without technical training in bookkeeping or accounting.

## BASIC PRINCIPLES

Farmers spend money for at least three things—personal living, the purchase of property, and farming operations. They also receive income from three sources—from personal sources aside from farming, from

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SUMMARY OF INCOME, EXPENSE AND PROFIT				
For <i>W.F. Snow</i> Farm, Record Year Ending <i>Dec 31 1940.</i>				
Income Items on Lines 1 to 7 from Page 17	Quantity	Total Value	Price	
1 <i>Prunes</i>	<i>68436 #</i>	<i>2053 02</i>	<i>03</i>	
2 <i>Barley</i>	<i>2856 00</i>	<i>2484 72</i>	<i>87</i>	
3 <i>Wool</i>	<i>2560</i>	<i>665 60</i>	<i>26</i>	
4 <i>Sheep Sold</i> <i>43 head.</i>		<i>97 30</i>		
5 <i>Lambs Sold</i> <i>163 head</i>	<i>12877 #</i>	<i>1094 55</i>	<i>8 50</i>	
6 <i>Miscel. Income</i>		<i>42 50</i>		
7				
8 Total Cash Income, Add lines 1 to 7 incl.		<i>6437 69</i>		
9 Products, etc. sold but not paid for, pages 56-59.				
10 Farm contribution to family living, page 62.		<i>58 60</i>		
11 Increase Inventory, Feed, Stock, etc., page 71		<i>310 00</i>		
12 Total Income, Add lines 8 to 11 incl.		<i>6806 29</i>		
EXPENSE, Items on lines 13 to 21 are from page 17.				
13 <i>Labor</i>		<i>1140 50</i>		
14 <i>General expense &amp; taxes</i>		<i>532 70</i>		
15 <i>Tractor expense</i>		<i>653 40</i>		
16 <i>Truck expense</i>		<i>180 63</i>		
17 <i>Auto expense \$175.40 \$1.00 personal</i>		<i>75 40</i>		
18 <i>Crop expense, sacks etc</i>		<i>932 20</i>		
19 <i>Miscel. Repairs</i>		<i>97 60</i>		
20 <i>Electric power</i>		<i>301 40</i>		
21 <i>Sheep expense and feed</i>		<i>203 50</i>		
22 Total Cash Expense, Add lines 13 to 21, incl.		<i>4117 33</i>		
23 Unpaid Expense, pages 56-59.		<i>67 45</i>		
24 Depreciation, Bldg., Eqt., etc., get from inventory.		<i>546 30</i>		
25 Decrease in Inventories, Feed, Stock, etc., page 71				
26 Total Expense, Add lines 22 to 25 incl.		<i>4731 08</i>		
27 Net Farm Income, line 12 minus line 26.		<i>2075 21</i>		
28 Deduct Value Operator's & Family Labor, Est. from page 16.		<i>960 -</i>		
29 Capital and Management Income, line 27 minus 28.		<i>1115 21</i>		
30 Deduct, Interest on Investment, compute from page 71. <i>@ 5%</i>		<i>1206 32</i>		
31 Management income, line 29 minus line 30.		<i>-91 11</i>		
32 Net Cash Income, line 8 minus line 22.		<i>2320 36</i>		

In compiling the above statement, get cash incomes and expenses from page 17 or the year's totals from the cash record. Amounts for line 11 and 25 may be obtained from page 63, but depreciation, line 24, should be the sum of all the depreciation columns in the inventory.

Fig. 1.—Profit and loss statement as used in the *California Farm Record Book*. The computation of farm profit or loss is the most important goal in farm record keeping. It is made easy by a unified system of records with adequate instructions.

the sale of property, and from the sale of farm products. Farmers' financial records must separate these three sources or purposes if they are to show the earnings from farming operations. It cannot be done otherwise, nor can correct income-tax returns be made without the separation of personal, farming, and property or capital items.

There are two ways of making this separation. One is to sort them out mentally before writing them down and enter farm items in one book, personal items in another, and perhaps capital or property items in another; or, as some farmers do, just write down the farming items and forget the rest. A better method is to handle all business and personal affairs in a single set of records but make the necessary segregation by placing amounts in different columns, or charging them to different accounts. This latter method is recommended and presented in this circular in the belief that it makes for more accurate and complete records.

*Personal Affairs.*—Expenditures for food and clothing are personal and not farming expenses. Also, expenses for operating the home, such as fuel, light, and furnishings, are usually personal expenses. Some bills are part personal and part farm, and should be divided at the time they are paid, and entered in the record. When there is doubt about whether an item is a legitimate farming expense or not, it will usually prove to be a personal expenditure, such as life insurance, or an income-tax payment. Incomes from other than farm sources, such as annuities, gifts, and labor or services off the farm are personal and are separated by putting them in a personal column in the record showing incomes. Sometimes a farmer has other investments or activities besides his farm, but not enough to warrant a separate set of records. Such items may also be entered in the farm records but placed in the personal columns.

It is an advantage to have all personal incomes and expenses recorded along with business items in a single record which may be more easily checked for accuracy and completeness with one's bank account. Frequently one's personal affairs or withdrawal of funds for personal use, rather than farming expenditures, may need closer control and better management to avert financial failure. Also, information on personal incomes and certain personal expenditures are needed for the personal income-tax return as much as farm incomes and expenses are needed for the farm schedule. (See p. 28.)

It is also desirable and sometimes necessary to know the farm operator's contribution to his business in materials and labor, and his withdrawals from his business in farm products and supplies. This improves the accuracy of the computed farm profit and is especially needed where more than one person or family shares in the ownership and profits of the farm business. It fosters better management and often discloses opportunities to increase farm profit and personal income by utilizing idle time for additional production of some crop or livestock product for sale or use in the home. The *California Farm Record Book*<sup>2</sup> contains a special

<sup>2</sup> Shultis, A., and L. A. Crawford. *California Farm Record Book*. 72 p. Published by the Associated Students Store, University of California, Berkeley. Price, 75 cents a copy, postpaid, tax extra.

page for recording monthly and annual estimates of farm products used in the home. The labor record in that book contains a column for the operator to enter the hours he personally works each day throughout the year. A summary of all contributions and withdrawals for the year between the operator and his business tends to improve financial security by showing when withdrawals are greater than are justified by the earnings of this farm business.

*Capital.*—Property is capital. Cash is capital, and the purchase of a farm or building or piece of equipment is called capital outlay. Such purchases of property must be separated from farming expenses. Since they should be recorded for future reference, however, a capital column is recommended in farm records, along with personal and farm-expense columns. To charge the purchase price of a tractor, usable over a period of years, to farm expense for the year in which it is purchased is obviously incorrect: the cost of that tractor should be spread over the years when it is used. This is accomplished by means of a charge called depreciation, explained on page 7. But in order to make such charges properly, an accurate and complete record of capital outlay as separate from personal and farm expenses is necessary.

Pieces of equipment costing over \$15 and usable over a period of years should be considered as capital outlay. The purchase of small tools of low cost and short life may better be considered as farm expense on the expectation that average purchases over the years would approximate the depreciation charge on such equipment and make its bothersome computation unnecessary. Repairs that merely maintain the expected useful life of buildings or equipment are current expense and not capital outlay. But additions and rebuilding that increase the usefulness or extend the useful life of an item are capital outlays.

The cost of bringing a young orchard or vineyard into bearing is a capital outlay. And this capital outlay includes not only the cost of the new trees, but also all labor and materials and other expenditures for the care of the orchard while it is being brought up to commercial bearing age. To consider such expenditures as capital outlay, where they are mingled with other farm expenses, is difficult and might require detailed accounting procedures not possible in a simple set of records. It is permissible to estimate the portion of farming expenses that is for the development of an orchard and transfer this amount from expenses to capital outlay at the end of the year; or that part of the development cost which is easily segregated may be considered as capital outlay and subject to later depreciation, the remainder being absorbed as current expense for the farm business as a whole during the development period. Only that part which has been handled as capital outlay may properly

be spread over the productive years of the orchard in the form of depreciation charges. Occasional replants after an orchard is in bearing are current expense and not additional capital outlay.

Livestock purchased for work or breeding, or for productive purposes over a period of years, are capital outlay, the same as equipment and if so considered when purchased are subject to depreciation. However, where an annual inventory of livestock on hand is used in computing profit, it is better to consider all livestock purchases as current expense and include them in the annual inventories at proper values—cost, age, and quality considered. Animals bought for early resale or those of short life, such as poultry, are best considered as expense and not capital outlay. In a dairy where many cows are purchased and sold annually, it will be more convenient to consider the purchase of cows as current expense in order to avoid the necessity of recording the cost, depreciation, and selling price of each animal in the depreciation record.

*Depreciation.*—That share of the cost of any improvement or piece of equipment which is properly chargeable to a year of use is called *depreciation*. It may also be defined as the loss in value of a facility through use or the passage of time. It is an estimate based on the probable total use or life in years, hours, or miles of service. An item costing \$60 and having an estimated useful life of twelve years and no salvage value would have an annual average depreciation of one twelfth of \$60, or \$5 a year. The straight-line method of figuring depreciation and remaining value is most frequently used; that is, the same amount of depreciation is taken each year. Another method sometimes preferred, as in the case of automobiles, is to take enough depreciation each year to keep the remaining book value in line with the market value for cars of that make, age, and condition. For items not used an equal amount each year, it would be well to base depreciation upon the hours or miles of use. For example, a combine estimated to have a total useful life of 3,000 hours could be depreciated one tenth of its cost in years when used 300 hours, or one thirtieth of its cost when used 100 hours.

The rate or amount of annual depreciation should be estimated so that the cost or remaining value of each facility will be absorbed over the remaining useful life of that facility. To write off, or depreciate, equipment at a much faster rate than it declines in value through use is not a good practice, since when written off no further depreciation may be taken. The total of all depreciation charges on a facility must not exceed the original cost less any salvage, or turn-in value. Thus a depreciation record over the years is necessary to show the remaining value and depreciation on each piece of equipment annually. Should a facility be sold for some other amount than the remaining book value, the differ-

TABLE 1

USUAL USEFUL LIFE AND DEPRECIATION RATES FOR CALIFORNIA FARM FACILITIES\*

Item or group	Approximate age of commercial bearing or use	Productive or useful life after reaching commercial age		A common rate of depreciation
		Range	Usual	
Orchards and perennial crops:	<i>years</i>	<i>years</i>	<i>years</i>	<i>per cent</i>
Alfalfa .....	1	2- 5	3	33
Asparagus .....	2	8-12	10	10
Almond trees .....	7	15-30	25	4
Apple trees .....	12	20-40	30	3
Apricot trees .....	8	20-35	30	3
Bramble vines .....	1	5-20	10	10
Cherry trees .....	9	20-35	30	3
Fig trees .....	8	10-40	25	4
Grape vines .....	3	20-40	30	3
Grapefruit trees .....	5	10-30	25	4
Irrigated pasture and Ladino clover .....	1	5-20	10	10
Lemon trees .....	5	25-35	30	3
Olive trees .....	8	20-80	50	2
Orange trees .....	7	25-35	30	3
Peach trees .....	5	15-25	20	5
Pear trees .....	10	15-60	40	3
Plum trees .....	8	15-30	20	5
Prune trees .....	10	15-30	25	4
Walnut trees .....	10	20-50	40	3
Buildings and improvements:				
Barns and other farm buildings .....	..	20-60	30	3
Dwellings .....	..	30-50	40	3
Fences .....	..	10-30	20	5
Wells .....	..	10-30	20	5
Irrigation pumps and motors .....	..	10-25	15	7
Irrigation pipe line, concrete .....	..	20-50	30	3
Farm machinery and equipment:				
Tillage and similar implements .....	..	5-20	10	10
Harvesters, diggers, etc. ....	..	10-30	15	7
Ladders and lug boxes .....	..	5-10	8	15
Milking machines, refrigerators, etc. ....	..	5-15	10	10
Field power and transportation units:				
Automobiles and trucks .....	..	4-12	7	15
Tractors, 6,000 to 12,000 hours of use .....	..	8-12	10	10
Trailers .....	..	10-20	15	7
Work stock .....	4	5-20	10	10

\* Depreciation on farm facilities should be based upon the probable useful life for each item under the use and conditions prevailing. Standard or usual rates should not be used where they do not apply. This table is presented as a rough guide only. Annual depreciation may best be computed by dividing the cost of the item by the total years of expected usefulness. It is also frequently computed by multiplying original cost by a depreciation rate in per cent. Net cost or value when reaching commercial production or use replaces original cost in the case of perennial crops and livestock.



ence may be used to increase or decrease total depreciation for the year for all property. There can be no standard rates of depreciation because conditions differ so from farm to farm. Some ranges in rates or probable length of life are shown in table 1. It is easier to figure depreciation and current values by using years than by percentages. As depreciation is only an estimate, round figures making for easy computation should be used.

*Farming Operations.*—One of the main objectives in farm records and accounts is to learn the profit or loss of the farm business for a year. This requires that incomes from farm operations and expenses of conducting these operations be accurately obtained. Farm incomes are largely from the sale of farm products. Incomes from the sale of property should not be confused with incomes from farming. Likewise, farm expenses are those that are not personal expenditures or capital outlay. Depreciation is also a farm-operating cost which is estimated at the end of the year and combined with cash expenses in figuring profit.

Expenses pertaining to the operator's personal dwelling should not be considered as farm expense except to the extent that the dwelling is used for farming operations, such as handling farm products or feeding and housing employees. If one fourth of the total use of the house is for the farming business and three fourths is for the family, then the expenses for the dwelling should ultimately be divided one fourth to farm and three fourths to personal expenses. However, it would usually be better to charge all house expenses to the personal account during the year and then make a charge to farm expenses at the end of the year and a credit to personal expense for the farm-business use of the home. Expenses on an automobile for both personal and farm use should likewise be divided between farm and personal expense. It is usually easier to charge all automobile expenses to farming operations during the year and then at the close of the year estimate the proper charge to the personal account for personal use, and deduct this amount from farm expenses.

Property taxes on the farm are farm expense, except for that portion which is on the personal dwelling and nonfarm personal property. The total tax bill may be divided on the basis of the operator's estimate of the actual value of the property covered. Likewise, fire insurance, electric-power bills, and many other items call for some division between farm and personal uses. It is not, however, necessary to go to extremes in troublesome calculations on small amounts. Rough estimates will be satisfactory. Interest on a farm mortgage may be considered entirely as farm expense. The payment of principal or repayment of any loan or long-standing debt from a previous year is not a farm expense but must be handled as a capital outlay.

Cash Book			
1936			
Frank A. Smith Cash Received			
	Total Received	Personal Capital	From Operations
Jan 1 Cash on hand in bank	497.34		
2 Bureau furniture & supplies	5-		
9 House & 2nd St. 1936	27.50		
15 Golden Gate 1936	7.11		
18 Cash from Source on 25 weeks	328.50		
22 National Bank for January	12.50		
Total for January	154.86	497.34	172.00
		OK 1894.82	
Issued checks for Jan	678.87		
Balance Little work	1177.17	OK	
Also checks 1934, 1949	122.75		
Statement Balance	1279.92	OK	
Feb 1 Balance on bank			
	1171.17		
Frank A. Smith Cash Paid			
	Total Paid	Personal Capital	From Operations
1 Bank of America, savings	200-		
2 C. S. Fidelity	30-		
3 C. S. Fidelity	11.50		
4 C. S. Fidelity	1.50		
5 C. S. Fidelity	1.50		
6 C. S. Fidelity	1.50		
7 C. S. Fidelity	1.50		
8 C. S. Fidelity	1.50		
9 C. S. Fidelity	1.50		
10 C. S. Fidelity	1.50		
11 C. S. Fidelity	1.50		
12 C. S. Fidelity	1.50		
13 C. S. Fidelity	1.50		
14 C. S. Fidelity	1.50		
15 C. S. Fidelity	1.50		
16 C. S. Fidelity	1.50		
17 C. S. Fidelity	1.50		
18 C. S. Fidelity	1.50		
19 C. S. Fidelity	1.50		
20 C. S. Fidelity	1.50		
21 C. S. Fidelity	1.50		
22 C. S. Fidelity	1.50		
23 C. S. Fidelity	1.50		
24 C. S. Fidelity	1.50		
25 C. S. Fidelity	1.50		
26 C. S. Fidelity	1.50		
27 C. S. Fidelity	1.50		
28 C. S. Fidelity	1.50		
29 C. S. Fidelity	1.50		
30 C. S. Fidelity	1.50		
Total for February	678.87	3760	259.95
		OK 254.85	

Fig. 2.—A simple 4-column cash record used in system A. At least 4 columns are recommended in all farm cash records so that all cash receipts and payments may be segregated into the three basic accounts—personal, capital, and farming operations. The above shows 8½ by 11 inch 4-column journal paper in an inexpensive student's binder.

There may be other farm expenses than those for which cash has been paid during the year. Exchanges of property for materials or feed or labor used on the farm, or unpaid bills, would not appear in the cash record but should sometimes be considered as expense in figuring profit for the year. A memorandum of noncash transactions is needed for listing such items so that they may be obtained and properly used at the end of the year. An unpaid expense used in one year in figuring profit should not be considered expense if met in cash the following year, and so is entered as a capital outlay.

Four basic columns are recommended in all simple farm cash records—the first being a total column and the other three for segregating personal, capital, and farming items, as illustrated in figure 2.

*Farm Enterprises.*—So far only farming operations for the farm business as a whole have been mentioned, but for purposes of improving management and earnings it is sometimes desirable to break the farm business down into the different crops and kinds of livestock, in order to figure the profit or loss on each. Any crop or kind of livestock in commercial production is called an enterprise. The procedures required for the accurate computation of profit for each enterprise in the farm business, however, are rather complicated and usually require more time and technical accounting training than are available to the farmer keeping his own records. Enterprise accounting, as explained under system E on page 43, is certainly worth while where warranted by the size and nature of the business, so it is mentioned occasionally in this circular, even though methods cannot be fully included. The reader may well consider its advantages and work toward it as his ultimate goal in farm records.

*The Record Year.*—Earnings from farm operations should be figured for the record year, that is the twelve-month period that best covers the usual seasonal sequence of a complete cycle of operations from planting through production and marketing. The record year should begin on the first day of the first month of such a year and close with the last day of the twelfth month. On a diversified farm where there are a number of enterprises starting at different times, some are bound to overlap any single record year. In such cases choose as the record year the one best suited for most of them. Where no other record year is more suitable, the calendar year will be found more convenient. Statements for any period shorter than the record year are of little use, but it is advisable to make totals and prove the accuracy and completeness of the records at the end of each month.

*Inventories of Livestock, Products, and Supplies.*—On many farms, livestock or farm products produced during one year are not sold until

a year or two later. Also, most of the sales may be of products from a former year. Feed and supplies are sometimes purchased or are on hand for use in the following record year. In such cases, to calculate earnings correctly for a particular year it is necessary to use an inventory of live-stock, products, and supplies on hand at the beginning and end of the record year. The closing inventory value plus farm incomes for the year less the opening inventory and farm expenses will give a much truer farm profit or loss for that year than if only farm incomes and expenses are used; particularly where the inventories of livestock, unsold products, and supplies at beginning and end of the record year are large.

### FARM RECORDS

A *record* is a single type of information entered consecutively on a specific form. There are several kinds for special purposes, some containing financial information, while others are devoted to physical quantities or events. An *account* is a record in which are assembled only those financial items pertaining to a person or thing. An account has two sides, such as received and paid, or expense and income, which are called debit and credit. The difference between them is called the balance. A *system* in this circular is applied to a group of records and accounts intended when used together to meet all the needs of the farm operator and farm business for which they were chosen. Five sample systems are explained later in more detail under "Systems of Farm Records and Accounts" on page 34. The service a farm operator obtains from a system is largely determined by his selection of the records to be used. He should consider the following records carefully and select those he feels will be necessary or worth while to him.

*Cash Record or Cashbook.*—A record in which cash-received and cash-paid transactions are entered as they occur is called a *cash record*. It is the most important of all financial records and is frequently the only one kept. It provides a history of the amount and source of all cash incomes, and also the amount and purpose of cash expenditures from day to day. From this record, totals for the year are obtained and used in computing farm earnings.

There are several forms of cash record, the oldest and simplest being the bound book with 1 column to a single page, the left-hand page being used for receipts and the right-hand page for payments. A better form for a farm operator contains at least 4 columns to a page, the first column being for the total received or paid, and the other 3 columns showing the distribution of that amount to personal, capital, and farm-operating accounts. Where a double page is used to enter both receipts and payments, it is customary to put receipts on the left-hand page and pay-

ments on the right. Each entry should consist of the date ; person or firm involved ; what the payment was for, including quantity, if possible ; and the amount. When either page (received or paid) is filled, totals are made, proved correct, and carried forward to the next double page ; thus current receipts and payments always appear on opposite pages. Four-column journal paper to fit student binders will serve well for this kind of a cashbook, and such a record is illustrated in figure 2.

Additional distribution columns in the cash record are often an advantage, for different kinds of farm incomes and expenses may then be segregated and recorded. In this case a double page is used for a record of cash received, and other double pages are used in a different section of the book for cash paid. This form of cash record was adopted for use in the *California Farm Record Book* in 1940 at the request of users of the former edition, which contained only the 4-column records of cash received and paid on opposite pages. It is illustrated in figure 3. Where commercial accounting forms are used, the record of cash received and the record of cash paid or the check record are on special forms in different sections of the loose-leaf binder.

The cash record is complicated by the fact that there may be two cash funds, pocket cash and a checking account in the bank. For the farm operator with a single bank account for both farm and personal affairs, it is recommended that the cash record parallel the bank account and that pocket cash be a personal matter and not recorded. All farm and important personal receipts must then be deposited, and all farm and large personal payments made by check. Hence, only deposits and checks need to appear in the cash record, which can then be checked for accuracy and completeness with the bank statement and checkbook. All personal withdrawals for pocket cash are by check, with the amount charged to personal purposes by placing it in the personal column. When a small farm expenditure is made from personal pocket cash, the entry and charge to farm expense are made by division of the next personal check between personal and farm-expense columns. This use of the bank account as the cash account for the accounting system is one of the greatest aids in keeping a cash record. Nothing is saved, however, by trying to make duplicate deposit slips ; the checkbook or canceled checks serve in place of a cash record. The distribution of incomes or payments to the 3 basic accounts is most easily obtained by placing amounts in different columns in a cash record. One bank account for personal items and another one for the farm business is seldom a convenience, since some payments from either account will require troublesome division of the amount between personal and farm purposes.

A 4-column cash record or the cash record in the *California Farm*

[illegible]

Fig. 3.—Record of cash paid as used in the *California Farm Record Book*. The separation of personal, capital, and farm-operating items is best accomplished in a cash record with 4 basic columns, one for all payments and one for each of those main types. Additional distribution columns for the segregation of farm expenses are also convenient, as in the above record.

*Record Book*, where the cash account parallels the bank account as recommended above, is kept as follows: At the beginning of the month enter the balance of cash on hand in the cash-received column and also in the capital column. Each item of cash received is deposited in the bank and entered in the record of cash received in order of its receipt. The amount is always placed in the first or cash-received column, and also in one of the other 3 basic-account columns. For example, an income from the sale of farm products is placed in the farm-income column, and a personal income in the personal column; or if the receipt was from the sale of property, or a loan, or a back debt from a previous year, it is placed in the capital column. At the end of the month, check incomes to deposits on the bank statement and add each column. The sum of the totals of the 3 basic distribution columns must equal the total of the cash-received column. Perform the same steps with the record of cash paid after checking the payments listed with the bank statement and checkbook. The difference between total cash received, including the balance at the beginning of the month, and total cash paid should equal the balance on hand at the end of the month, as verified by the balance shown in the checkbook and bank statement, with allowance made for outstanding checks. There will usually be room to show this calculation on the cash-received page, as in figure 4. The monthly totals for all columns, including any additional distribution columns, may now be entered on a special page for that purpose or posted to ledger accounts in a full bookkeeping system. This list of monthly totals is useful in working on a budget or in obtaining and using short-term credit. A special page is provided in the *California Farm Record Book* for entering farm incomes and farm expenses by kind for each of the twelve months, in order to obtain annual totals.

*Record of Noncash Transactions, or Journal*.—A memorandum of noncash transactions will usually be needed to record those that will not appear in the cashbook. In a simple system, such as A or B, a full explanation of the transaction and the amount involved can be recorded with little attention to the form of entry. At the end of the year it will be necessary to go through this record and obtain those items needed in figuring farm profit.

*Cash Journal*.—This is a combination of cash record and journal to serve the purposes of both, in addition to others. It is recommended for use in system C, which is explained on pages 39–41. It is particularly desirable where different accounts for bank and pocket cash are necessary. The cash journal is a double-page, multicolumnar form with paired columns for debit and credit entries pertaining to a certain account or group. In farm record keeping the first 4 or 5 pairs of columns are used

for basic accounts and the remaining columns are used singly for the distribution of farm incomes or expenses by kind. As described in this circular for system C (p. 39), the cash journal is not intended as a part of a full bookkeeping system, although it could well be used in one as an original book of entry in place of the cashbook and journal.

The cash-journal ruling may be obtained in a bound book or in several sizes and forms to fit accountant's loose-leaf binders. An 11 by 14 inch binder with double-page forms of 20 or 24 columns is recommended.

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CASH RECEIVED *Frank A Smith.*

Date	From Whom, For What, and Quantity	Dep.	Total Received	Non Farm	Farm Capital	Farm Income
1938						
July 1	On hand in bank	-	113 75		113 75	
2	Miravale Production Credit Assn	✓	160 -		160 -	
2	Hanford County - jury duty 3da	✓	12	12 -		
5	Golden State Co. - 986 # milk fat	✓	315 52			315 52
8	Horne Nielsen, 3 cows	✓	135 -			135
9	Frank Silva - old disk	✓	15 -		15 -	
21	Golden State Co. 882 # mt.	✓	282 24			282 24
23	Fred Monroe - Rent of Tractor	✓	16 -			16
27	Frank Hooks - 2 bull calves	✓	5 -			5
	Total		1054 51	12 -	288 75	753 76
	Less checks for month		874 23			288 75
	Balance, check book		180 28	12		12
	Less checks out		90 25			1054 51
	Balance statement		270 53	✓ OK		
Aug 1	Balance on hand or in bank	-	180 28		180 28	

Fig. 4.—Record of cash received as used in the *California Farm Record Book*. The cash record should be proved accurate and complete at the end of each month. The sum of the totals of the 3 basic distribution columns should equal the total of the column for all cash paid as shown above. The cash balance, obtained by deducting total payments from total receipts, should equal the actual cash on hand or checkbook balance, and the latter should be proved correct by means of the bank statement.

This binder permits the selection of a large variety of forms and the inclusion of other records, such as the depreciation record and ledger accounts. A 16-column distribution sheet<sup>3</sup> fitting an inexpensive student's 3-ring binder for 8½ by 11 inch sheets is also entirely satisfactory where the number of columns required is not over 16 and will also serve other uses, such as for a depreciation record, pay-roll record, and analysis-ledger account. Its use is illustrated in figure 15.

The blank cash-journal form provides an opportunity to write in the basic-account headings needed. The bank account, personal account,

<sup>3</sup> This 16-column distribution sheet is published by the Associated Students' Store, University of California, Berkeley, for use in farm record keeping and will be maintained in stock if the demand warrants.



capital account, and farm-operating account will each have a debit and credit column. Another pair of columns may be used for a pocket-cash account where frequent receipts and expenditures that do not pass through the bank account must be recorded. Where such a cash account is needed, all cash received by this fund is entered in the debit, or cash-received, column, and all cash paid from this fund is entered in the credit, or paid, column. Both personal and farm expenditures can be paid from this fund. The difference between receipts, including cash on

*Valley Farm Supply Co.*

1940				1940		
Jan. 5	Cash	60 -	Jan. 1	Balance		176.37
20	"	40 -	6	Feed		17.40
Feb. 5	"	50 -	Feb. 5	Feed, etc.		39.50
18	"	50 -	Mar. 10	Feed		21.60
Mar. 10	"	54.87				
		254.87				254.87

Fig. 5.—A common form of ledger account. Such an account has two sides called debit and credit. The above illustration was opened by entering the balance of \$176.37 owed to the Valley Supply Company on the right-hand, or credit, side. Subsequent payments of cash to that company on account appear as debits on the left-hand side and other feed purchases as credits on the right. After the March 10 payment settled the account in full, it was ruled and totaled to show the two sides were equal and that the account was closed.

hand at the beginning of the record, and cash payments should equal the cash on hand by actual count. This is called *proving cash* and should be done monthly to insure accuracy.

The amount in every transaction is entered in such a way that amounts in debit columns equal those in credit columns. A withdrawal of personal funds by check would be a credit to the bank account and a debit to the personal account, and entered in those columns. Hence, at all times, accuracy and completeness of entries may be proved by checking the total of the basic debit columns to the total of the credit columns. Farm-income and farm-expense distribution columns are likewise checked to the total farm-income or total farm-expense columns. It is recommended that totals be proved monthly and after proof of cash and bank balances, be entered on a special page for monthly totals. Figure 15 shows a month's cash-journal record with its proof. Notice that to maintain the balance of debit and credit columns in all entries, the bank and cash balances shown as debits in those accounts at the begin-

ACCOUNT NO. 2400 ACCOUNT Dairy Expense, 1934.										SHEET NO. 2			
STANDARD FORM 612 PRINTED IN U. S. A.										USE IN PART ONLY. STANDARD ANALYSIS SYSTEM, LEDGER.			
DATE	DESCRIPTION	REFERENCE	CHARGES	CREDITS	ON CR	BALANCE	DATE	DESCRIPTION	REFERENCE	CHARGES	CREDITS	ON CR	BALANCE
18 275	Truck Work						18 275	Truck Work					
11 990	Misc.						11 990	Misc.					
57 60	Cow Testing						57 60	Cow Testing					
65 50	Elec. Power						65 50	Elec. Power					
700 20	Labor						700 20	Labor					
610 -	Pasture						610 -	Pasture					
638 -	Concentrates						638 -	Concentrates					
1957 -	Hay						1957 -	Hay					
30	CR6		432 05			432 05	30	CR6		432 05			432 05
30	J4		82 60				30	J4		82 60			
30	PR		380 -				30	PR		380 -			
30	Burnt straw		117 50				30	Burnt straw		117 50			
30	J4		16 -				30	J4		16 -			
30	C1		385				30	C1		385			
30	CR7		79 75				30	CR7		79 75			
30	J4		100 -				30	J4		100 -			
30	PR		122 30				30	PR		122 30			
30	C2		350				30	C2		350			
30	CR7		77 25				30	CR7		77 25			
30	J4		60 -				30	J4		60 -			
30	PR		114 50				30	PR		114 50			
30	C2		630				30	C2		630			
30	CR8		117 45				30	CR8		117 45			
30	J5		30 -				30	J5		30 -			
30	PR		154 25				30	PR		154 25			
30	Feed Inven.			495 80		5796 30	30	Feed Inven.			495 80		5796 30
30	Deprec.			355 75		5156 25	30	Deprec.			355 75		5156 25
30	6m'l. Exp.			332 88		5988 33	30	6m'l. Exp.			332 88		5988 33
30	Te. Price			5988 32			30	Te. Price			5988 32		
277 50	Total		6484 13	6484 13			277 50	Total		6484 13	6484 13		
862 18							862 18						
8475							8475						
101 -							101 -						
1109 70							1109 70						
900 -							900 -						
868 70							868 70						
178 450							178 450						
ANALYSIS OF QUANTITIES AND COSTS, 1936.													
Quantities													
Total 1936													
Cost per Cw													
Cost per lb.													
Hay	2337	466 000	1973	1784 50	3781	10 5							
Concentrates	102500	2172	868 70	18 40	50								
Pasture, 4m'l.	720	153	900 -	19 07	50								
Total Feed Cost			865320	75 28	20 5								
Labor	hr.	3515	74	1109 70	23 51	64							
Truck	hr.	370	18	277 50	5 88	16							
Cow Testing				8475	1 80	5							
Elec. Power				101 -	2 14	4							
Miscellaneous				174 35	3 69	5 16							
General Expense				332 08	7 04	17							
Depreciation				355 75	7 53	20							
Total Cost				5988 33	126 87	34 5							

Fig. 6.—Ten-column analysis-ledger account, system E. Amounts entered in an important account may be further segregated by kind by using multi-column analysis-ledger forms. The above illustrates the expense account for a dairy enterprise in which quantities and costs of several kinds of feed and other expense items are obtained by means of a 10-column analysis-ledger form for an 11 by 14 inch accountant's binder. In this case the analysis of quantities and costs by kind for the year was shown on the same page after the closing of the account at the end of the year.

ning of the month are balanced by a credit to the capital account, and that positions are reversed at the close of the month. Notice also that farm-expense distribution columns are proved equal to the total farm-expense column.

**Ledger.**—The ledger is composed of separate accounts with people or things. This is a storehouse of sorted and accumulated financial information. In connection with a simple set of farm records, separate accounts in a ledger are optional but are recommended where it is desirable to assemble all transactions with someone owing or owed by the operator

over a long period, and also for any special enterprise for which a separate profit calculation is needed. In full double-entry bookkeeping systems the ledger contains accounts for many purposes, and all transactions will result in a debit to one account and a credit to another. These debits and credits are posted from transactions originally entered in the cash book, journal, and other original records of entry. The sum of all debits in all ledger accounts should equal the sum of all credits, and this is usually proved monthly by trial balances.

A ledger account has two sides, debit and credit. A simple form is illustrated in figure 5. For simple accounts, however, a newer 3-column form with the third column showing the current balances is sometimes preferred. For further distribution of items within a certain ledger account the analysis-ledger-account form is recommended. Loose-leaf forms are available with 8, 10, and 21 analysis columns in the 11 by 14 inch size. Such accounts would be particularly useful in keeping considerable detail for general expense, tractor, and enterprise-expense accounts, and would reduce the total number of accounts needed in a full accounting system. Figure 6 illustrates an analysis-ledger account for a dairy-enterprise-expense account. A similar form would also be used for the dairy-income account in an enterprise-accounting system. The accumulation of quantities of labor and materials and of different kinds of expense is a valuable aid to analyzing an enterprise with the purpose of discovering changes that will make it more profitable.

*Diary.*—A diary is a place to record daily activities, events, breeding dates, and unusual weather, for future reference. It may be kept in special books available for that purpose, or such information may be entered in some other record, or combined with the labor record as in the *California Farm Record Book*, shown in figure 7. The daily use of such a record not only provides a valuable historical record for future reference, but also helps the formation of good habits in other matters, since going to the desk each day to make entries will result in keeping financial records up to date, and will also avoid omissions through lapse of memory.

*Labor Record.*—A labor record will usually be needed where there is more than one employee. It should show the time worked by each employee each day, and also the quantity of the operator's and unpaid family labor, in order to complete the picture of all labor used in farm operations. Its summarization monthly and annually should help to improve the utilization and distribution of labor. Such a record is needed for the computation of wages, and it also improves supervision in that the necessity of filling it out tends to make the operator or foreman check on his workmen more carefully.



[illegible]

Fig. 8.—Farm worker's monthly labor record, system E. The above form or one of similar nature is used in enterprise accounting for listing work and computing its costs by enterprises and jobs within enterprises. One is required each month for each worker on the farm.

needed only where full enterprise accounting is followed. At the end of each month a summary of each worker's labor is entered in the pay-roll record.

*Pay-Roll Record.*—In enterprise accounting a pay-roll record showing the distribution of labor costs to enterprise and other accounts is needed. At the end of each month, each worker's time and wages are entered opposite his name, and the total cost of his services is distributed over columns for each account to which labor is to be charged. When all entries have been made, monthly totals are secured and posted to the proper ledger accounts. Columns may also be provided for different operations on crop enterprises so that the enterprise may be more fully analyzed with a view to discovering possible economies.

*Service-Unit Records.*—Tractors, trucks, pumping plants, bunk houses, and similar units are operated to perform services for productive enter-

HOUSE NO. <u>9</u>					PEN NO. <u>1</u>														
MONTH <u>Apr.</u>					YEAR <u>'38</u>														
Date	Died	Sold	Added	Transferred	EGGS					REMARKS	GRAIN FED			MASH FED			Greens		
					1st	2nd	3rd	4th	Total		WT	WT	Total	WT	WT	Total			
1					171	89	260				40		38						
2					139	116	255				44		40						
3	2				112	133	245				46		44						
4					128	123	251				47		46						
5					111	107	218				48		47						
6	1				123	103	226				49		48						
7	1				135	116	251				50		49						
8	1				112	123	235				48		50						
9					102	122	224				48		48						
10	2				113	109	222				48		48						
11					124	116	240				48		48						
12	4				107	123	230				48		49						
13					117	111	220				48		48						
14					121	123	244				47		48						
15					111	125	236				46		47						
16	4				120	114	234				46		45						
17					130	104	234				46		46						
18					139	99	238				46		46						
19		22			122	136	258				44		44						
20					104	120	224				44		44						
21					117	118	235				44		44						
22					130	110	240				44		44						
23					130	102	232				44		44						
24					116	110	226				45		44						
25					135	101	236				45		45						
26					115	117	232				45		45						
27	1				120	105	225				45		45						
28					111	119	230				44		44						
29	2				104	122	226				44		43						
30					119	96	215				43		44						
31																			
18 22 0 0					7042					11880 hen days. 59.3% production									

  

Birds 1st of month	<u>418</u>	Birds Added	<u>0</u>	Date	
Birds Died	<u>18</u>	Birds Transferred	<u>0</u>	To	
Birds Sold	<u>22</u>	Birds End of Month	<u>378</u>		

Fig. 9.—A poultry pen or house record. A daily production, mortality, and feed record for each separate pen of birds is a valuable aid to the efficient operation of a poultry enterprise. Special records can be developed and used for better management of all livestock enterprises.

prises, and not to earn a profit for themselves. Costs thereon may be segregated in separate accounts or distribution columns, where they may be analyzed as a guide to better selection and operation of such units. In enterprise accounting these costs are distributed to enterprises on the basis of use or services performed; hence some kind of record is needed to show the work done by enterprises. Such records may be included in the simple labor record, or special records may be developed.

The labor record in the *California Farm Record Book* (fig. 7) contains columns for showing horse, tractor, truck, and other use daily. The farm worker's monthly timecard (fig. 8) also contains a place to record use of field-power units by that worker. Or, one of these cards may be used for each truck, tractor, or other unit to show its use daily and facilitate a summary of services for the year.

*Crop and Field Records.*—A record should be made each year of the use of each field and the production thereon. A fairly accurate up-to-date map showing roads and fences, with the fields numbered and acreage marked thereon will provide the basis for such a record. This would be supplemented by a list of crops by fields in which would be shown the total yield, yield per acre, and perhaps the disposition of the crop. The map will also serve other useful purposes, such as estimating seed, fertilizer, or fencing requirements, in planning future operations.

*Livestock Records.*—A suitable record pertaining to each livestock enterprise of commercial size is a valuable aid to better management. For a dairy, a herd-production record and individual cow-breeding and production records as obtained through herd-improvement associations are advisable. For a beef-cattle herd, a memorandum book is used in the field to record herd counts, death losses, brandings, vaccinations, and sales; this is indispensable in properly managing and keeping track of such a large investment. For a swine enterprise, breeding and farrowing records for individual sows are valuable. A poultry-pen record on production, mortality, and feed, is shown in figure 9.

*Inventory.*—An inventory is a detailed list of items owned, by quantity and value. A full inventory for the preparation of a net-worth statement would contain all property owned and all debts. In figuring profit or loss, in connection with a depreciation record, only an inventory of livestock, products, and supplies is necessary. These latter items should be inventoried carefully by counting, measuring, or otherwise computing the quantity on hand and then computing the value by means of prices estimated by consistent methods over the years. Productive livestock, such as breeding cows, dairy cows, or sows, should be valued conservatively at about the same amount per head for stock of the same age and quality from year to year. Livestock and crops about ready for sale should be listed at farm value at the time of the inventory. *Farm value* is market value less the cost of marketing. Crops raised for feeding on the farm should be listed at farm value at the time of harvesting. Purchased feed and supplies should be listed at cost delivered to the farm. The valuation of equipment will be discussed below under the "Depreciation Record."

An inventory can be made at any time on any form, but it is usually

# Page 1 DEPRECIATION RECORD

F. W. Jones

Date Acquired	Item	Area sq. ft.	Original Cost	Value 1/1/37	Added 1937	Deprec. 1937	Value 1/1/38	Added 1938	Deprec. 1938	Value 1/1/39	Added 1939	Deprec. 1939	Value 1/1/40	Added 1940	Deprec. 1940	Value 1/1/41	Added 1941	Deprec. 1941	Value 1/1/42	Added 1942	Deprec. 1942
1918	Barn	40	90	334	28	6	480	40	26	484	26	488	26	492	26	496	26	500	26	504	26
1920	Corral & Yard Fences	20	120	78	6	6	74	6	6	66	6	60	6	54	6	48	6	42	6	36	6
1924	Domestic Well	20	180	102	6	6	96	6	6	90	6	84	6	78	6	72	6	66	6	60	6
1927	Drainage Tile	30	300	200	10	10	190	10	10	180	10	170	10	160	10	150	10	140	10	130	10
1931	Irrigation Well	20	450	360	15	15	345	15	15	330	15	315	15	300	15	285	15	270	15	255	15
1931	Pump & motor - 104hp	20	660	412	33	33	429	33	33	396	33	363	33	330	33	297	33	264	33	231	33
1931	Pipeline (1200' x 8" @ 30¢ + 66 band)	20	600	480	20	20	460	20	20	440	20	420	20	400	20	380	20	360	20	340	20
1931	Pump & motor	24	24	18	1	1	17	1	1	16	1	15	1	14	1	13	1	12	1	11	1
Feb 1936	Domestic water system & pressure tank	20	250	237.50	12.50	12.50	225	12.50	12.50	212.50	12.50	200	12.50	187.50	12.50	175	12.50	162.50	12.50	150	12.50
July 1938	Gauge and ship	40	600				235	640	7.50	572.50	15	557.50									
	Subtotal - Bldg & Improv (form)	1354	244.50		127.50		234	640	137	220.7		144.50	212.50		144.50	212.50		144.50	212.50		144.50
1946	Dwelling	40	300	170	90	90	120	90	90	150	90	140	90	130	90	120	90	110	90	100	90
	Total Buildings & Improvements	774	441.50		217.50		254	640	227	249.7		234.50	412.50		234.50	412.50		234.50	412.50		234.50
	Automobiles & Tractor																				
1921	Dodge Sedan	10	720	210	60	60	140	50	50	90	50	90	50	90	50	90	50	90	50	90	50
2/9/34	Chrysler 22 Tractor	10	1800	1460	160	160	1300	160	160	1120	160	1120	160	960	160	800	160	640	160	480	160
1/4/37	Chrysler Pickup	10	180	915	100	100	815	160	160	755	160	755	160	595	160	435	160	275	160	115	160
9/21/37	Olds 6 Sedan	14	1250				575						110		110						
	Total Autos & Tractor	344	2165		220		1915	310	310	1605	310	1605	310	1295	310	985	310	675	310	365	310

Fig. 10.—A depreciation record. Such a record shows the original cost of each separate item, any additional capital outlay, its annual depreciation, and its remaining value over the years. The above illustrates the use of the 16-column distribution form in a 3-ring student's binder for a depreciation record covering five years.



made once a year at the end of one record year and the beginning of the next. Special farm-record books usually contain forms for a complete inventory and net-worth statement at the beginning and end of the record year. Figure 11 shows the inventory summary page or statement of net worth from the *California Farm Record Book*.

**Depreciation Record.**—The depreciation record is a listing of all items of improvement and equipment in which is shown for each item the date of purchase, original cost, probable total useful life, present value at the beginning of the record year, additional capital outlay during the year, depreciation for the year, and value at the close of that year and the beginning of the next. Space is provided for all this information in the improvement and equipment inventories in the *California Farm Record Book*. Since such books are for one year only, it is necessary each year to copy much of the data over into the new book for the following year. There must always be a continuity of values from year to year so that total capital outlay but no more will be charged off as depreciation over the useful life of that item. A continuous record for several years is a great convenience and is made possible by distribution sheets of from 16 to 24 columns to a double page. Figure 10 illustrates such a depreciation record.

All large items usable over a period of years and considered as capital outlay when obtained, should be listed individually in the depreciation record. Each item will take one line across a double page in the columnar record for several years. Items should be listed by groups and totals for each group taken each year, to facilitate checking by groups and to show the remaining value and annual depreciation for that group of property. Space should be left above the totals for the addition of new items over the years. When the depreciation record is started for the first time it is necessary to make a complete inventory of all improvements and equipment to be listed. Original cost, present age, and total length of life will be needed. Where age and original cost are not known they will have to be estimated.

Divide original cost by expected total length of life to obtain average annual depreciation; no salvage value is assumed in most cases. Subtract present age from total expected life to obtain expected years of additional service. Multiply average annual depreciation by expected additional years of service to obtain present value. For example, a disk harrow costing about \$240 and known to be ten years old is expected to contain two more years of useful service. Thus its total life is twelve years, which divided into \$240 gives a depreciation of \$20 a year. With two more years to go, its present value is \$40.

Where age or cost of a piece of equipment cannot be estimated, it is

permissible to assume the present value and base future depreciation on the expected years of service. If a disk appears to have a present second-hand value of \$60 and appears to be good for five more years, then the depreciation would be figured at \$12 a year.

Where additional capital outlay is made for an existing item during a year, it is shown in the proper column and included in the value at the close of the year after taking a new depreciation based upon the new expected useful life. For example, a twenty-year-old barn costing \$1,000, with a value of \$500 at the beginning of the year, is remodeled at a cost of \$700. This brings the present value up to \$1,200, which if spread over the now expected thirty years of use would result in a \$30 depreciation in place of the former \$25. The value at the close of the year would then be \$1,170.

At the end of each year it is well to check over the depreciation record to see that all equipment owned is properly entered and also to see that all equipment listed is still on hand in usable condition. In computing depreciation for the year and the remaining value for each piece of equipment, it is also well to see that the remaining value in the record is close to actual value. If there is a discrepancy, depreciation may be increased or decreased to bring the remaining value at the end of the year closer to the actual value of that item. Total depreciation is then obtained from this record for inclusion in the annual profit and loss statement.

When depreciation takes off the last remaining book value for an item, it can be dropped if it is no longer in use. If still in use it should be included in the record but given no value. When an item is traded in or sold it is dropped by writing "sold" and showing the amount. The difference between selling price and value at the first of the year may be shown as depreciation. If sold for more than book value, the difference is encircled to show that this is to be subtracted rather than added in obtaining total depreciation. When all columns on a double page have been used by carrying forward the depreciation record for several years, a new record is started in the same way. On the new record, items no longer in use and entirely written off (having no remaining value) are omitted. Figure 10 illustrates a depreciation record for five years kept on 16-column distribution sheets in a student's 3-ring binder. Notice how an additional capital outlay and the trading-in of an old car on a new one are handled. Also notice that the family dwelling, although shown, is not included in the first total, since depreciation thereon is a personal and not a farm expense.

*Personal or Household Accounts.*—The keeping of a detailed record of personal expenditures by kind is an optional supplement to a system

of farm records. The cash records explained on pages 12–15 show total personal expenditures but no segregation. For better control or budgeting of personal expenditures, however, a separate record showing the amounts for various purposes may be kept in a separate section of a loose-leaf record book or in a special household-account book.<sup>4</sup> Such a record makes a most useful supplement to the *California Farm Record Book*. The farm cash record will show all personal withdrawals or payments of personal bills. These items are also entered in the home account, where they are distributed in detail over such columns as food and clothing, household expense, luxuries, benevolences, health, and home furnishings.

*Files and Business Papers.*—Not to be overlooked in a system of records are files for statements, receipted bills, invoices, and other business papers. These may contain considerable detail that cannot be incorporated in the cash record, but which may well be preserved for future reference. A separate filing folder or pocket for each firm or packing-house that handles products from the farm is recommended, and material for at least one previous year should be on hand for ready reference.

### STATEMENTS

A *statement* is an assembly of data in summary form from various records, usually at the end of the record year. They need not be formal or follow any prescribed form. But unless a summary of the year's records is made, a large part of their value is lost. A farm profit and loss statement, net-worth statement, and a statement of personal contributions and withdrawals are most important and should be prepared each year and preserved for comparison. A few other statements are also suggested below, in the belief that they may improve farm management and profits.

*Farm Profit and Loss Statement.*—The statement of farm profit or loss for a year is a presentation of farm incomes and expenses in summary form with the computation of farm profit or loss. Cash incomes and expenses are obtained from the cash record. The required noncash items are obtained from the memorandum of noncash transactions and other special records. Depreciation is obtained from a complete inventory or a depreciation record. If the opening and closing inventories of livestock, products, and supplies are large and would materially affect the computed profit or loss, they should be used. If their effect is small, they may be omitted from the profit and loss statement, profit or loss then being based upon the difference between cash incomes and cash

<sup>4</sup> The *Home Account Book* is obtainable without charge from home demonstration agents conducting home-management educational work in most agricultural counties in California.

expenses plus depreciation. A uniform policy should be followed from year to year, although it is always possible to change to a more suitable method. Figure 1 shows the profit and loss statement used in the *California Farm Record Book*.

The value of the operator's own labor as based on a labor record may well be included as an expense in order to obtain a net-income figure for the farm business that will be more comparable from year to year. If the operator's labor is not included as an expense, the net income would be what is called *net farm income*, which would represent the total return to the operator for his management, labor, and invested capital. Any one or all five of the principal measures of net income may be obtained, but they should be obtained by consistent methods from year to year and the same ones used for comparison. The five main profit figures are as follows:

*Net farm income* is the profit as computed (with or without inventories of livestock products and supplies) without considering the operator's or unpaid family labor as an expense and without interest on the operator's net investment in the business as an expense, but with depreciation included as an expense.

*Capital and management income* is computed as above, except that operator's and family labor is considered an expense, or it is obtained by deducting the value of that labor from net farm income.

*Management income* is the capital and management income less interest on the operator's net investment in the business at any chosen rate of interest, perhaps 4, 5, or 6 per cent. It is the amount remaining to reimburse him for his management after all other costs are met, including wages for his labor, and interest on his invested capital.

*Capital income* is the capital and management income less an estimated management charge. It is the net earning of invested capital and may be divided by the operator's net investment in the farm business to show the rate of return.

*Labor income* is the profit as computed where interest on the operator's investment is considered an expense, but not the value of his own labor. It is management income plus the value of the operator's labor, or is farm income less interest on the operator's investment.

*The Farm Schedule for Income Tax.*—The farm schedule (Form 1040F federal, and 540F California) is a supplement to the personal income-tax return. It is for the purpose of showing farm incomes and expenses, and for computing "net farm profit" from the farm business, this amount being carried over as a single item to the personal return or distributed to the personal returns of those who share it. This farm schedule or a summary of the farm profit and loss statement based upon

an adequate set of farm accounts kept on an inventory, or accrual, basis is required of all farmers who must file a personal return. The farm schedule is merely one particular form of a farm profit and loss statement, and may be prepared from any adequate set of books or records, or filled in directly from a profit and loss statement already made. Though used more widely by farmers who figure profit on what is called a cash basis, the farm schedule also provides for the computation of profit on the inventory, or accrual, basis if that is preferred and followed consistently.

No special form of records or method of accounting other than would be chosen as most appropriate, convenient, and accurate for disclosing the true profit or loss from farming operations is required for the farm schedule. Capital outlay and personal expenses must of course be eliminated from farming expenses, as explained in the section on "Basic Principles." Depreciation claimed as a farm expense on the farm schedule will ordinarily be the same as that shown in one's depreciation schedule except where the method of handling certain items in previous years requires a different procedure. For example, where the expenses of developing an orchard were included as current expense in previous years, instead of capital outlay, depreciation on that orchard would not be a deductible expense in the farm schedule. The farmer who keeps his own records, who honestly and consistently follows instructions, and who uses proper valuation policies and methods of reporting from year to year should have no trouble in filling out his farm schedule.

The farm schedule provides for the calculation of "net farm profit" by either of two methods: (1) the cash receipts and disbursements, or (2) the inventory basis. Whichever method is adopted must be followed until permission to change is obtained.

On the cash basis, "net farm profit" is cash farm incomes less cash farm expenses and less depreciation. Records required for this basis are a record of cash farm incomes and expenses and a depreciation record. This basis is recommended for its simplicity where the sales in any year reflect the value of the products produced during the year.

On the inventory basis, the inventory of livestock, products, and supplies is considered in computing profit. Cash incomes plus the closing inventory less opening inventory, cash expenses, and depreciation equals "net farm profit." Records required for this basis are the record of cash farm incomes and expenses, the depreciation record, and the inventory of livestock, products, and supplies at beginning and end of the record year. This basis is recommended where crops or livestock produced are not usually sold in the year of their production and are carried over from year to year in varying quantities. The inventory basis of figuring

FARM INVENTORY SUMMARY and STATEMENT OF NET WORTH					
	Item		Value		
			Beginning of Year	End of Year	
1	Land	from Page 64	20020 00	20020 00	—
2	Crops, Trees, Vines	Page 64	3600 00	3480 —	120
3	Buildings and Improvements	Page 65	4533 20	4320	213 20
4	Departmental Equipment	Page 65	—	—	—
5	Farm Automobiles, Tractors, Trucks	Page 65	973 40	810 40	163 00
6	Implements, Equipment, and Tools	Page 66	1230 10	1080 —	150 10
7	Work Stock	Page 68	—	—	—
8	Beef Cattle	Page 68	—	—	—
9	Dairy Cattle	Page 68	—	—	—
10	Sheep	Page 69	1215 00	1380 —	165 00
11	Swine	Page 69	—	—	—
12	Poultry	Page 69	30	30	—
13	Other Livestock	Page 69	—	—	—
14	Feed, Products and Supplies	Page 67	432	677 90	245 90
15			—	—	—
16	Accounts and Notes Receivable	Page 70	—	—	—
17	Farm Cash	Page 70	567 30	632 10	64 80
18			—	—	—
19	Total Farm Assets	Add lines 1 to 18	32601 —	32430 40	476 70
20	Accounts and Notes Payable	Page 70	7326	6526	800 —
21	Net Worth of Farm	Line 19 minus line 20	25275 —	25904 40	629 40
STATEMENT OF PERSONAL NET WORTH					
	Item		Value		
			Beginning Year	End of Year	
22	Net Worth of Farm	Line 21	25275	25904 40	629 40
23	Family Dwelling	Page 65	3000 —	2850 —	150 —
24	Personal Property, Car and H. H. Goods		1530	1400 —	130 —
25	Personal Accounts and Notes Receivable		—	—	—
26	Personal Cash and Bank Deposits		—	—	—
27			—	—	—
28	Total Personal Assets	Add lines 22 to 27	29805 —	30154 40	349 40
29	Personal Accounts and Notes Payable		—	—	—
30	Personal Net Worth	Line 28 minus line 29	—	—	—

Fig. 11.—Inventory summary and net-worth statement as used in the *California Farm Record Book*. This illustration shows in the first section the net worth of the farm business and below that the total personal net worth. The preparation of this statement annually shows whether one is getting ahead or running behind financially and tends to promote economic security.

profit puts the profit in the year when it is earned, and results in a more uniform computed profit from year to year, where inventories are large. To ignore inventories, as in the cash basis, might result in more violent fluctuations in profit from year to year, with a tendency to increase the amount of tax to be paid, although the total profit over a period of years would be the same by either method.

*Net-Worth Statement.*—The statement of net worth is a list in summary form of property and debts, the difference between the value of all property and the sum of all debts being the *net worth*. It may apply to the farm business only, or also include personal items. The net-worth statement can be prepared at any time by listing everything owned and owed, but it is usually made at the end of each record year, so that the same inventories or listings can also be used in computing profit. A comparison of net worth with that of previous years will show whether there has been an increase or decrease. When used alone without a farm profit and loss statement, it does not show the reason for an increase or decrease, since a decrease in net worth might be due to excessive personal withdrawals and not to the failure of farming operations to show a profit. Figure 11 shows the net-worth statement in the *California Farm Record Book*. Notice that it is in two parts, first the net worth of the farm business and then the farm operator's personal net worth. The satisfaction of knowing one is getting ahead financially is certainly worth the trouble of making such a statement annually, as is the warning in case of a decline in net worth.

*Statement of Personal Contributions and Withdrawals.*—A most important comparison is made by means of an informal little statement, or calculation, which summarizes the operator's relation with his farm business. On the one hand it should show his contributions in labor, money, and materials, and on the other, the amount withdrawn in cash, products, and supplies. The form of this statement, or comparison, is unimportant, but what is shown should be known and acted upon. If net withdrawals are greater than farm profit, then a decline in net worth is bound to take place and the operator may be said to be living upon part of his capital as well as his profits, if any. Such a condition is occasionally necessary in such a hazardous occupation as farming, but this cannot be continued for many years without impairment of financial security. If personal withdrawals cannot be reduced, then ways must be found to increase farm earnings. Figure 12 illustrates this type of statement.

*Annual Summary of Labor and Field-Power Use.*—It is well for the farm operator to record the hours of man labor and the hours of use of power units monthly and for the year, in order that he may better organize his business to reduce peak requirements and be guided in future decisions regarding the purchase of equipment. Figure 13 shows the summary page in the *California Farm Record Book*, where this information is made available by entering monthly totals from the labor record illustrated in figure 7.

*Annual Summaries of Livestock Records.*—Where livestock-production records of any kind are available, they can only reach their greatest

*Vitalea Farm & F.H. Smith*  
*Statement of Personal Contributions & Withdrawals*

Date	Explanation	
	Net Profit or Management Income, Farming	1546.26
	Personal Contributions to Farm Business	
	Labor 2566 hours @ 30¢	769.80
	Cash from personal sources	<u>73.20</u>
	Total	843 -
	Personal Withdrawals	
	Farm products for food etc	223 -
	Personal use of car 300 mi @ 6¢	180 -
	Cash withdrawals for living etc	<u>2148.50</u>
	Total	<u>2551.50</u>
	Net withdrawals	<u>1708.50</u>
	Deficit or Decline in net worth Farm Business	162.24
	Net decline house & personal goods	163.40 <u>163.40</u>
	Total decline in personal & farm net worth	<u>325.64</u>
	Total living cost	<u>2714.90</u>
	Per mo. \$226 -	<u>100 high</u>

Fig. 12—Statement of personal contributions and withdrawals. This statement brings together in summary form the relations between the farm operator and his business. Its primary purpose is to disclose and check such unsound tendencies as excessive withdrawals, which may cause a decline in net worth.

ANNUAL SUMMARY OF HOURS WORKED OR TIME USED ON ENTIRE FARM FOR YEAR ENDING

Dec. 31, 1936

Month	Total Hours Worked or Used for Entire Farm						Saddle Horse
	Man Labor Self & Emly.	Hired	Drift Horse	Tractor	Truck	Pump or Irrig. Water	
Jan.	225	261	36		31		6
Feb.	198	243	306	30	29		10
March	214	252	144	15	31	120	15
April	210	349	92	15	30	342	81
May	246	664	478	51	31	365	31
June	206	624	400		70	374	23
July	198	660	448	47	31	418	26
Aug.	208	700	630	51	32	238	56
Sept.	273	1607	302	40	89	125	10
Oct.	239	517	608	60	62	102	20
Nov.	152	243	54		30		4
Dec.	197	144	54		31		8
Total	2566	6264	3552	309	497	2438	290

Opposite each month in the above form place the totals for that month from the monthly labor records, pages 4 to 15. Obtain totals for the record year. The blank columns may be used for securing annual totals of additional information. Self labor and other family labor will be the sum of these items. Hired labor entered above will be the sum for all employees.

Fig. 13.—Summary of labor and field power as used in the California Farm Record Book. An annual summary, by months, of man, horse, tractor, truck, and irrigation-plant work is useful in many ways, such as for rearranging work to reduce peak needs and for deciding the size and kind of power units to own or to rent.



usefulness through an annual summary. Form is unimportant, but such information as eggs per average hen for the year, percentage mortality, and percentage culled should be calculated for a poultry enterprise of

Enterprise analysis; Pears, Home Ranch, 1940  
43.2 acres, 4,580 trees, 16 years old

	Total Quantity	Quantity per acre	Total value	Per acre	Per ton
<b>Income:</b>					
No. 1 and 2 shipping fruit	324.60 T.	7.51 T.	\$ 9,900.30	\$229.17	\$30.50
Loose fruit shipped	47.50 T.	1.10 T.	1,161.58	26.89	23.95
No. 1 cannery fruit	162.41 T.	3.76 T.	4,466.28	103.39	27.50
Culls and windfalls	37.21 T.	0.86 T.	42.79	0.99	1.15
Total fruit	571.72 T.	13.23 T.	15,570.95	360.44	27.24
Sheep pasture	350 hd. mo.	8.1 hd.mo.	52.50	1.22	0.02
Total income			15,623.45	361.66	27.33
<b>Expenses:</b>					
Man labor					
Pruning	Contract	. . . .	\$669.60	\$15.50	\$1.17
Brush disposal	90.7 hr.	2.1 hr.	33.26	0.77	0.06
Spraying	838.1 hr.	19.4 hr.	293.76	6.80	0.51
Cutting blight	937.4 hr.	21.7 hr.	328.32	7.60	0.57
Cultivation	345.6 hr.	8.0 hr.	138.24	3.20	0.24
Irrigation	432.0 hr.	10.0 hr.	151.20	3.50	0.27
Miscellaneous	324.0 hr.	7.5 hr.	120.10	2.78	0.21
Subtotal			1,734.48	40.15	3.03
Propping	133.9 hr.	3.1 hr.	48.38	1.12	0.09
Picking	6,177.6 hr.	143.0 hr.	2,160.00	50.00	3.78
Hauling fruit and boxes	604.8 hr.	14.0 hr.	241.92	5.60	0.42
Total man labor			4,184.76	96.87	7.32
Tractor work	259 hr.	6.0 hr.	292.67	6.77	0.51
Truck work	518 hr.	12.0 hr.	621.60	14.39	1.09
Horse work	780 hr.	18.1 hr.	101.40	2.35	0.18
Total labor and field power			5,200.45	120.38	9.10
Irrigation water	695 Acre-in.	16.1 Acre-in.	410.40	9.50	0.72
Fertilizer, barnyard	36 T.	0.83 T.	54.00	1.25	0.09
Fertilizer, ammonium sulfate	10 T.	0.23 T.	400.00	9.26	0.70
Covercrop seed, vetch and oats	1,550 lbs.	36.0 lbs.	71.80	1.66	0.12
Spray material	. . .	. . .	486.00	11.25	0.85
Subtotal			6,622.65	153.30	11.58
General Expense			725.76	16.80	1.27
Depreciation on trees			432.00	10.00	0.76
Other depreciation			134.78	3.12	0.24
Total all costs			7,915.19	183.22	13.85
Net profit			7,708.26	178.44	13.48
Investment			\$10,755.36	\$457.30	. . .
Rate earned on investment, per cent			39.0	. . .	. . .

Fig. 14.—Enterprise profit and loss statement. The above is a sample statement and analysis of a pear enterprise as it could be made from a full enterprise-accounting system under system E.

commercial size, and preserved for comparison from year to year. A summary of feeds used might also prove helpful.

*Enterprise Profit and Loss Statement.*—Although this circular does not attempt to present full enterprise accounting, it is well for the farmer using simple farm records on a farm business as a whole to consider the value of a detailed statement and analysis of a crop or livestock enter-

prise. Where the farm business consists of only a single enterprise, it is easy to make up an enterprise statement from any simple set of records. Such a statement should show the total yield, income, and costs for the enterprise, and the same data per acre or per cow, and also per unit of product, as per ton or per hundredweight or per dozen. Figure 14 shows a sample statement for a pear enterprise. A fairly accurate statement can be made up from a simple set of records, provided some supplemental information is kept in the labor record and in a few ledger accounts. Certain general farm expenses not directly chargeable to the different enterprises can be arbitrarily divided between different enterprises at the end of the year, in order to make up the statements.

### SYSTEMS OF FARM RECORDS AND ACCOUNTS

A combination of records kept concurrently on the farm and personal business is called a system. It is composed of those records selected from the complete list, previously described under "Farm Records," as having for the operator in question enough value to more than repay him for the time and trouble involved. For small farms a brief simple system composed of a single record, such as a cashbook, might be sufficient. For larger farms additional records would be required, and a more complete system would be desirable and could be justified by the volume of business or amount of wealth involved. The more detailed and complete the system, the greater its value in organizing and administering the business, but also the greater will be the time and effort required. Although there are infinite variations and combinations of records, five basic systems have been selected for further explanation. One of these, with modifications, perhaps, should meet the needs or be within the ability or time and cost limitations of practically every California farmer. Failure to mention additional systems or methods, however, does not mean that other satisfactory ones do not exist.

Simple record systems requiring no technical knowledge of bookkeeping include:

- System A, simple cash record supplemented by depreciation record
- System B, farm record book with all necessary records and statements
- System C, cash journal and depreciation record plus needed supplementary records

Accounting systems requiring technical accounting ability include:

- System D, double-entry bookkeeping on farm business as a whole
- System E, enterprise accounting

The first three methods are intended for use by farmers without the use of technical bookkeeping procedures. System A is the absolute mini-

num of records that would provide for the computation of farm profit or loss and for making out an income-tax farm schedule on a cash basis. System B is any one of a number of carefully prepared special farm-record books containing all forms and records needed by the operator of the usual family-sized commercial farm. It has the advantage of containing instructions and special forms not available elsewhere. System C is similar to system A, except that a more useful cash journal replaces the simple cashbook. It has the advantage of facilitating the handling of cash, bank, and credit or noncash items in a single record. To utilize its advantages fully, however, would require somewhat more care and ability than systems A or B.

Full double-entry bookkeeping procedures are involved in systems D and E. Double-entry bookkeeping consists in the entering of each transaction in books of original entry, with each transaction ultimately resulting in the further entry of the amount involved as a debit to one ledger account or more, and an equal amount credited to other ledger accounts. It is very doubtful if anyone can successfully conduct such systems without some formal training or home study of bookkeeping. Therefore, their use would be limited to those farms where some member of the household has the required training or where the volume of business warrants the employment of technical assistance or a part- or full-time bookkeeper. These systems are, however, sometimes required, and so they are presented briefly in this circular in order that the reader will be more adequately helped in the selection of a system that will meet his needs.

#### **SYSTEM A, THE SIMPLE CASH RECORD**

The minimum system that will provide a historical record of most financial transactions and the information needed for income-tax return and farm schedule is the cashbook or any complete record of all cash received and of cash paid for farming expenses, supplemented by the computation of depreciation on farm buildings and equipment. Even in this simple system it is still necessary to separate personal, property (or capital), and farm-operating receipts and payments. The cashbook recommended would have similar left- and right-hand pages with date, explanation space, and 4 money columns on each.

The left-hand page would be for listing all cash incomes from any source with all items entered in the first column. Personal incomes would be entered also in the second column. Cash received from borrowings, long-standing debts, or from the sale of property would be entered in the third, or capital, column, while cash received from the sale of farm products would be entered in the fourth column. Items in the second, or personal, column and perhaps some of the items in the third, or capi-

tal, column are needed for the personal income-tax return. Items in the fourth column would be placed in the income-tax farm schedule. Although it would be desirable to total and check these columns monthly or at the bottom of each page, it is not necessary to have this record check with cash or bank account, provided care is taken to record everything received, whether deposited in a bank or not. An unchecked or unproved record is at least a little better than no record at all.

Cash payments should be entered on the right-hand page with all amounts entered in the first column and then also distributed to the other three columns to show the purpose of the expenditure, whether personal, capital outlay, or farming expense. It would be an advantage if all payments were made by check, as explained on page 13, but that is not necessary. The important thing is to enter all farming expenses in the farm-expense column. Small personal expenditures from pocket cash may be omitted. Figure 2 illustrates such a cash record.

When either the left- or right-hand page is filled, a page is turned and both cash received and paid records are continued on the next double page, so that current receipts and payments are always on left and right sides of the same open double page. Totals can be carried forward from page to page until the end of the record year when final totals are made and a new record started for the following year.

This form of cash record does not provide for further segregation of farm incomes or expenses by kind. To obtain such detail for a farm profit and loss statement and the farm schedule for the income-tax return, it will be necessary to go through and relist them by kind on a work sheet at the end of the year. Hence, this simple record in the long run requires as much work as a cash record with distribution columns, as in the *California Farm Record Book* in system B, or the cash journal in system C.

To figure farm profit correctly, it is necessary to supplement this cash-book with some kind of a depreciation record, as explained on page 25 and illustrated in figure 10. This would also make possible the listing of depreciation and its deduction in the farm schedule with a resulting reduction in the income tax to be paid.

#### **SYSTEM B, THE FARM RECORD BOOK**

There are numerous special farm record or account books in use in the United States. Some are prepared by the colleges of agriculture of various state universities and some by other public and private organizations doing business with farmers. Most of these books, if followed as intended, will meet the minimum needs for computing farm profit for the year for the farm business as a whole, on either a cash-receipts-and-disbursements basis or the inventory basis. They are all designed for

use by farmers with no bookkeeping or accounting training who wish to keep their own records. They usually contain facilities for only one year of business and always provide a cash record and complete opening and closing inventory, including equipment and computation of depreciation. Some include supplementary records, such as the labor record, map, and production records of various kinds. They also usually contain a blank profit and loss statement and a net-worth statement.

The *California Farm Record Book* was prepared for the use of California farmers by the University of California College of Agriculture (see footnote 2, page 5). It provides facilities for recording all cash receipts and payments, both farm and personal, along with other needed and optional farm records. It will meet most management needs, provide material for all required reports, such as the income-tax farm schedule and record of wages paid, and provides an interesting and useful historical record of events, financial transactions, crop yields, farm earnings, and net worth for future reference. A person of average intelligence and education who will sit down and make entries a few times a week should be able to carry on this system, make the concluding statements, and fill in the farm schedule for income tax on either the cash or inventory basis without help. The records of cash received and paid provide for the segregation of items into personal (or nonfarm), capital, and farm-operating columns, and provide additional columns for further segregating farm incomes and expenses by kind. Special forms for each record have been designed and are combined in proper proportions and with instructions in a single book containing facilities for one year. Figures 1, 3, 4, 7, 11, and 13 illustrate some of the forms provided.

The *California Farm Record Book* contains practically all the records needed by the farmer, and the inclusion of a labor record and diary would make any other record book unnecessary. It could well be supplemented by a ledger containing a few desired or necessary ledger accounts with persons or things. A pocket memorandum for field notes might also be desirable. Also, a continuous depreciation record covering several years as explained on page 25 could be used in lieu of part of the inventory to avoid relisting each item in the new record book each year.

The *California Farm Record Book* is designed for the computation of earnings on the farm business as a whole. Where this farm business is a single enterprise, as in the case of a poultry farm or an orange orchard, it does furnish most of the material for the analysis of that enterprise, since the farm profit and loss statement is also an enterprise statement. But even where there are two or more enterprises on the farm, distribution columns in the cash records and the labor record may be used in such a manner as to obtain most of the material needed for the analysis

F. W. Jones, January, 1941.

[illegible]

of major enterprises. With some supplemental records and estimating, useful enterprise statements could be prepared.

Although the *California Farm Record Book* does contain a number of useful records and facilities for a complete inventory and net-worth statement, their use is not always necessary. Minimum needs may be met by using only the cash records and that part of the inventory in which depreciation is computed.

### SYSTEM C, THE CASH JOURNAL

The cash journal (p. 15) and the depreciation record (p. 25) are the essential parts of system C. This system differs from system A in that the cash journal permits the recording of debits and credits between basic accounts and the entering of credit or noncash transactions along with both bank and pocket-cash transactions in the sequence in which they occur. In fact, the cash journal is really double-entry bookkeeping in that the amount for every transaction is entered twice, a debit to one basic account and a credit to another. But these accounts appear in the cash journal as a pair of columns, rather than as separate pages in a ledger. The cash journal offers greater opportunity for checking accuracy and completeness, but it is also somewhat more work than system A. It is preferred, however, by many California farmers who have developed their own system. It is well adapted to the medium-sized farm business of one enterprise or a few, where the income-tax farm schedule is to be made on a cash rather than an inventory basis. It is especially well suited to the farmer who wishes to enter both checks and payments from pocket cash in the same record, and yet keep them separate (fig. 15).

*Column Headings for the Cash Journal.*—Forms for the cash journal will consist of a double page with date column, explanation space, and from 16 to 24 amount columns in which suitable headings will be written. Part of these columns must be devoted to the required basic accounts, a pair to each account—the left-hand one being the debit column and the right-hand one the credit column. Remaining columns may be used singly or in pairs for further distribution of farm incomes and expenses by kind. The following list of columns illustrates those that would prove useful on a small orange and poultry farm where both bank account and cash were used in handling the personal and farm business.

Bank account :

1. Dr. Deposits
2. Cr. Checks

Cash as separate from bank account—optional :

3. Dr. Receipts
4. Cr. Payments

## Personal:

- 5. Dr. Expenses or withdrawals
- 6. Cr. Incomes from personal sources

## Property, capital, or assets and liabilities:

- 7. Dr. Capital outlays, payments on debts, etc.
- 8. Cr. Sales of property, debts incurred, etc.

## Farming operations:

- 9. Dr. All farming expenses
- 10. Cr. All incomes from sale of farm products

## Distribution columns for farm expenses in col. 9:

- 11. Dr. Labor costs
- 12. Dr. General expense—taxes, insurance, office expense
- 13. Dr. Repairs
- 14. Dr. Automobile and truck expense—gas, oil, tires, repairs
- 15. Dr. Tractor expense—fuel, oil, repairs
- 16. Dr. Miscellaneous other expenses

## Enterprise columns (a pair to each enterprise):

## Poultry (or dairy, or similar enterprise)

- 17. Dr. Direct expenses, feed, medicine, etc.
- 18. Cr. Income from above—poultry, eggs, etc.

## Oranges (or pears, etc.)

- 19. Dr. Expenses—spraying, fertilizers, etc.
- 20. Cr. Incomes—fruit sales

In this illustration the first 10 columns are devoted to the 5 basic accounts covering both kinds of cash and handling one's personal affairs, capital items, and farming business. Columns 11 to 16 are devoted to providing a further distribution of farm expenses not directly chargeable to any enterprise. Columns 17 to 20 or to 24 would provide pairs of enterprise columns for showing direct enterprise expenses and incomes.

*Using the Cash Journal.*—Every transaction is entered in such a way that amounts in basic-account debit columns (nos. 1, 3, 5, 7, and 9 above) equal amounts in basic credit columns (nos. 2, 4, 6, 8, and 10). On beginning the record, enter money in the bank and cash on hand in columns 1 and 3, respectively, and balance these with an equal amount in the capital credit column, no. 8. If the next entry were for the payment of a personal expense from cash, the amount would appear in column 4 as a payment of cash, and in column 5 as a debit to the personal account. If all items are properly entered in a debit and a credit column, the sum of all basic debit columns will equal the sum of all basic credit columns at any time, which proves the accuracy of the placing of the amounts, and also the additions. The difference between the cash received and paid totals at any time should equal the cash still on hand, unless some



has been lost or spent without proper entry. Likewise, the difference between the bank debit and credit columns should equal the amount in the checking account and may be compared with the checkbook stubs and verified by the monthly bank statement. It is suggested that all basic-account totals be proved correct monthly, or at the bottom of each page.

The distribution columns for farm income and expense (cols. 11 to 24) should likewise be totaled, and all debit, or farm-expense-column, totals proved equal to the farm-expense total in column 9, and enterprise-income-column totals proved equal to that of column 10. These monthly totals may then be entered elsewhere and a new record started each month or carried on throughout the year, to get the correct annual totals.

*Annual Summarization.*—At the end of the year, annual totals of all columns will be obtained either by adding the totals for the twelve months or by carrying page totals forward throughout the year. Below these preliminary annual totals, certain adjusting and closing entries may be made. First, obtain depreciation on farming facilities from the depreciation record and enter it as a farm expense (a debit to farm operations), and as a credit to farm capital. Then, if expenses on a car used jointly for personal and farm use have been charged entirely to farm expense, make an entry crediting farm expense (put it in the farm-expense column with a circle around it so that it will be subtracted) and debiting the personal account for that part of the car expense that should be charged to personal use. Inventories of livestock, products, and supplies may be brought into the record by making the proper entries; that is, charge the opening inventory to farm expense and credit the closing inventory to farm income. Any other necessary adjustments can likewise be made between accounts and distribution columns so that the final totals will show the true farm profit or loss as the difference between the farm-income and farm-expense totals. Even enterprise profit or loss can be shown by enterprise columns if all other farm expenses are transferred by means of some valid basis of allocation to the enterprise-expense columns. Farm profit and loss statements and income-tax returns can then readily be compiled from the information at hand with a minimum of reference to earlier entries.

#### **SYSTEM D, DOUBLE-ENTRY FARM BOOKKEEPING**

Double-entry bookkeeping is the basic procedure used in business where accuracy and honesty must be proved and demonstrated. Transactions are first entered in books of original entry, such as the cashbook and journal. The amount involved is also entered in the ledger as a debit

to one account and a credit to another. The number of ledger accounts will vary with the needs of the business, but the total debits in all accounts will equal the total credits if the work is correctly done. Farm bookkeeping is this same procedure applied to a farm business for the purpose of showing the value of the property involved and the profit earned by farming operations for the farm as a whole.

This system has three main advantages over the simpler systems, A, B, and C: (1) many more segregations of income, expense, property, and debts are possible through an unlimited number of ledger accounts; (2) credit transactions and inventories are more systematically handled, which tends to portray the net worth or financial status of the business more accurately, and to place the profit more exactly in the year in which it is earned; and (3) greater accuracy and completeness are assured and proved. Its disadvantages lie in the technical training or bookkeeping ability required and the greater amount of clerical work involved in making the additional entries in the ledger and proving its accuracy by trial balances.

System D is recommended where more than one individual is concerned in the ownership of the business, and where the relation of each to the business must be accurately determined and the profits fairly divided. It is also considered necessary in any large business where hired employees are involved in administration and in the handling of funds. System D can be of greater service to the farm operator who can understand it than the more simple and less complete systems. But since it usually requires more training or time than the active farmer has for the job, he usually has to have someone else keep the books. And unless the books are kept on the farm for convenient use by the operator, they become less valuable to him in managing his affairs. Also, unless the system is properly formulated and the accounts are chosen to fit the farm, it may be of little value from a management standpoint. Therefore, system D would ordinarily be preferred over systems B or C only where the operator or some member of the family was able to conduct it or where the nature or size of the business required it. It is the system usually followed where bookkeeping assistance is hired. However, where a full-time resident bookkeeper is available, system E would be preferred because of its greater usefulness as an aid to management.

The formulating and conducting of a double-entry bookkeeping system suited to a particular farm business would require greater mastery of accounting procedures than could be acquired from any brief circular of this nature. Therefore, no attempt is made to explain system D further. If the reader wants or needs a double-entry system, he will need to secure instruction or technical assistance elsewhere.

### SYSTEM E, ENTERPRISE ACCOUNTING

Farm accounting, in which profit or loss is computed for each crop or livestock enterprise within the farm business, is called *enterprise accounting*. This is the most complete and useful of all farm-record systems in that it discloses management information not available in other systems, and also it more adequately and accurately serves all purposes attempted by any of them. It provides information on the farm business as a whole, by the same methods and with the same results as in system D, and in addition, shows the contribution of each enterprise to farm profit or loss. Detailed costs on trucks, tractors, and other service units are also obtained. A complete check on the use of materials and supplies prevents loss and waste. System E is therefore recommended as the most desirable system where volume of business warrants the time and expense, and where accounting ability and clerical help are obtainable.

The disadvantages of system E lie in the technical accounting ability required to set up and operate such a system properly, the amount of work and time involved in routine clerical duties, and the effort involved in obtaining some of the information essential to the proper allocation of costs to enterprises. Close contact and coöperation between the manager (or operator) and the bookkeeper are essential if all information needed for properly keeping the records is to be available. Enterprise accounting should be done on the farm where the bookkeeper can keep or supervise records covering the use of labor, materials, supplies, and service units, by enterprises. Thus system E, although the best of all available systems, is usually followed only where size of business warrants a full-time resident employee who can devote a major part of his time to accounting, secretarial, and other administrative duties, or where some member of the operator's family or a partnership can perform these functions. Few farm operators will find it possible to do all the accounting work required in addition to their duties of administration and supervision, even though possessing the requisite ability and skills. Hence, enterprise accounting is something the farm operator should know about and have as his goal, but it is also a system of accounting for which professional and clerical help will usually be required.

### HINTS ON KEEPING FARM RECORDS

Fundamental principles, records, statements, and systems have been discussed in previous sections, but it still remains to consider some other miscellaneous hints and suggestions. These are intended largely for those who plan to do their own record keeping and have no one but themselves to please.

*Selecting a System.*—The beginner would do well to start with the simplest system that would meet his needs, such as system A or B; preferably B, since special farm record books contain instructions and special forms. Only part of the book need be used at first, but as ability and habits are developed, additional records can be added or a more complete system undertaken.



Fig. 16.—The farmer's desk. A well-lighted and equipped desk available at any time of day or night is one of the important aids to record keeping and better financial management.

*Obtaining Materials.*—The book or record forms to be used should be obtained well in advance of the beginning of the record year, and reordered in plenty of time, so that one is never without facilities to make entries as they occur.

*Making Prompt Entries a Habit.*—The prompt entering of transactions is a good habit well worth acquiring. And the way to form a good habit is by repeating the act as each opportunity offers. It is most important to make the first entry on time and thereafter to enter each transaction without delay. Postponement not only causes lapses of memory and errors or omissions, but the large amount of work necessary to get the record up to date results in further and further postponement and eventual dropping of the record. More records are discontinued because of "getting too far behind" than for any other reason.

*Desk or Place to Work.*—A conveniently located and well-lighted desk

should be available for record keeping any time of day or night. All handicaps must be removed and every aid should be available if the good intention of keeping records is to become the valuable and strong habit required. Such a desk should be reserved for this purpose only, and business papers, mail, checkbook, record book, and other necessary items, should always be assembled and kept at this desk. Figure 16 shows a suitable desk.

*Choice of Pencil or Pen.*—The pencil is recommended for keeping one's own records because it is more convenient, is always ready or quicker to use, and pencil records are easier to correct. Records should, of course, be permanent and legible, but entries made with a good-quality pencil with medium lead will meet this requirement. For records kept for others or by employees, ink is considered essential.

*Additions.*—There are many amounts to add in keeping and proving the accuracy of records on a farm business of moderate size. A small adding machine might be found a justifiable investment in saving time and promoting accuracy. Where an adding or calculating machine is not available, it is well to add columns two or more times to check the answer and also to add columns and prove totals frequently before there are too many figures involved.

*Entering Quantities.*—In all farm record keeping, adequate detail and all significant quantity and price information should be included in the entry. Instead of "John Jones, hay, \$140" the entry should read, "John Jones, 14 tons hay at \$10, \$140." In reporting the sale of farm products always record the quantity in number and total weight, and include the price per unit, as well as the name of the person and the amount received. Also, in the payment of wages it is well to indicate the days or hours or units of work and the rate of pay, as well as the total amount. Little extra trouble is involved, and such information may be useful later in settling disputes, planning operations, or establishing quotas.

*Accuracy.*—Perfect accuracy and completeness should always be the goal in farm records, but failure to attain perfection should not be allowed to slow down or stop record keeping. Small errors or omissions that will not destroy the practical accuracy of the record may better be ignored than allowed to consume too much time and energy in their discovery and correction. However, it is better to estimate approximate amounts for a forgotten item and make the entry accordingly than to omit the entry altogether.

